

**REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1 and 4-41 are now pending in this application. Claims 7-14, 16-18, 20-34, 37, and 38 are withdrawn from consideration.

**Rejections under 35 U.S.C. § 112**

Claim 1 is rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicant respectfully submits that amendments to the claims render this rejection moot.

In addition, Applicant respectfully submits that the disclosure of Applicant's application provides support for the amendments to the claims. For example, at least page 6, lines 32-37, of Applicant's specification provide support for the amendment to claim 1. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 4, 5, 10, and 35 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. These rejections are respectfully traversed.

In regard to the rejections of claim 1, Applicant respectfully submits that amendments to the claims render this rejection moot.

In regard to the rejection of claim 35, Applicant respectfully submits that one of ordinary skill in the art would understand the meaning and scope of claim 35. In addition, Applicant respectfully submits that the disclosure of Applicant's application provides context for one of ordinary skill in the art to understand the meaning and scope of claim 35. For example, at least page 5, lines 6-38; page 7, lines 14-27; and page 8, lines 14-27 provide

context for one of ordinary skill in the art to understand the meaning and scope of claim 35. The Office argues on page 11 of the Office Action that the range of 40 – 100 nm is recited in claim 36. However, this argument appears to assume that “a few nanometers” and “40 – 100 nm” would have precisely the same scope, which Applicant does not argue. Instead, this range provides context for the meaning and scope of claim 35.

For at least the reasons discussed above, reconsideration and withdrawal of these rejections is respectfully requested.

**Rejections under 35 U.S.C. § 103**

Claims 1, 4, 15, 19, 35, 36, 39, and 41 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over CN 1,413,797 to Peng *et al.* (hereafter “Peng”) in view of U.S. Patent No. Ishii *et al.* (hereafter “Ishii”). This rejection is respectfully traversed.

The Office suggests on pages 4-5 of the Office Action that Peng discloses a method of soldering using an active connection agent prepared from nanometer powder which was mixed with water, organic cellulose, and flux.

However, Peng does not disclose or suggest a brazing flux for the brazing of individual heat exchanger parts that comprises, a flux comprising a base material and nanoparticles, wherein the flux contains nanoparticles in an amount between 0.01% by volume and 10% by volume, and wherein the nanoparticles comprise nanoaggregates dispersed in an organic polymer, as recited in claim 1. Claims 4, 15, 19, 35, and 36 depend from claim 1. For example, Peng does not disclose or suggest a flux comprising a base material and nanoparticles, wherein the nanoparticles comprise nanoaggregates dispersed in an organic polymer, as recited in claim 1.

Ishii discloses water-based hydrophilic coatings and fin materials for heat exchangers that use such hydrophilic coatings. See Ishii at col. 1, lines 8-12. The Office asserts on page 5 of the Office Action that Ishii discloses that the hydrophilic coatings are produced by mixing colloidal silica, water-soluble polymers, and anionic surfactants over aluminum fins and then drying the mixture.

However, Ishii does not remedy the deficiencies of Peng because Ishii also does not disclose or suggest a flux comprising a base material and nanoparticles, wherein the nanoparticles comprise nanoaggregates dispersed in an organic polymer, as recited in claim 1. Instead, Ishii is silent in regard to these features.

For at least the reasons discussed above, the combination of Peng and Ishii does not disclose or suggest all of the features of claim 1. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 5, 6, and 40 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Peng and Ishii in view of EP 1 287 941 to Englert *et al.* (hereafter “Englert”). This rejection is respectfully traversed. Englert fails to remedy the deficiencies of Peng and Ishii discussed above in regard to independent claim 1, from which claims 5, 6, and 40 depend. Reconsideration and withdrawal of this rejection is respectfully requested.

### **Conclusion**

Applicant submits that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741.


Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for

such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

**FEB 19 2010**

Date \_\_\_\_\_

By  \_\_\_\_\_

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